In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the Application.

Listing of Claims:

1. (Currently amended) A software agent failure tolerant computer architecture for managing resources for transfer of data stored in a data storage environment including at least two data storage systems, the architecture comprising:

a data transfer server;

~~a software agent, designated as~~ a primary software agent hosted on each of said data storage systems, said primary software agent, in communication with ~~at least one of the two data storage systems and~~ the data transfer server, the primary software agent configured for performing data transfer operations in response to commands from the data transfer server;

one or more failover software agents in communication with the primary software agent, the data transfer server, and at least one of the two data storage systems, the failover software agents being remote from the primary software agent, wherein said primary software agent further represents a failover software agent for another of said primary software ~~agent~~ agents in another one of said data storage systems;

a failover protocol for determining an order in which said software agents, within a communication path of [[the]] a data transfer, are designated to take over the data transfer operation in response to one or more data transfer commands when a failure of one or more of said software agents is determined, said protocol being determined during configuration of said computer architecture.

2. (Original) The architecture of Claim 1, wherein the data transfer operation is a replication of data within the data storage environment.

3. (Previously presented) The architecture of Claim 1, wherein server commands to the software agents are sent over a network in accordance with an IP protocol.

4. (Previously presented) The architecture of Claim 1, wherein the software agents communicate with the at least one data storage system over the network in accordance with a Fibre Channel protocol.

5. (Previously presented) The architecture of Claim 1, wherein a predetermined hierarchal relationship is followed by the data transfer server to select the order in which the failover software agents are commanded to take over the work of the one or more determined failed software agents.

6. (Previously presented) A software agent failure tolerant computer architecture for managing resources for replication of data stored in a data storage environment including at least two data storage systems, and wherein data is replicated from one of the at least two data storage systems to at least one other data storage system of the at least two data storage systems, the architecture comprising:

a data replication management server;

a software agent, designated as primary software agent, hosted on each of said data storage systems, said primary software agent, in communication with at least one of the two data storage systems and the data replication management server, the primary software agent configured for performing data replication operations in response to commands from the data replication management server;

one or more failover software agents in communication with the primary software agent, the data replication management server, and at least one of the two data storage systems, the failover software agents being remote from the primary software agent, wherein said primary software agent further represents a failover software agent for another of said primary software ~~agent~~ agents in another one of said data storage systems;

a failover protocol for determining an order in which said software agents, within a communication path of [[the]] a data transfer, are designated to take over the data transfer operation in response to one or more data transfer commands when a failure of one or more of said software agents is determined, said protocol being determined during configuration of said computer architecture.

7. (Previously presented) The architecture of Claim 6, wherein server commands to the software agents are sent over a network in accordance with an IP protocol.

8. (Previously presented) The architecture of Claim 6, wherein the software agents communicate with the at least one data storage system over the network in accordance with a Fibre Channel protocol.

9. (Previously presented) The architecture of Claim 6, wherein the data replication management server uses a predetermined hierarchal relationship to select the order in which designated ones of the failover software agents are commanded to take over the work of the one or more determined failed software agents.

10. (Currently amended) A method for managing fault-tolerant resources for replication of data stored in a data storage environment including at least two data storage systems, and wherein data is replicated from one of the at least two data storage systems to at least one other data storage system of the at least two data storage systems, and at least one software agent in communication with at least one data replication management server for managing the fault tolerant resources, the method comprising:

configuring one or more software agents as failover agents that are in remote communication with another software agent, designated as primary software agent, which is also in communication with the data replication management server, and at least one of the two data storage systems, wherein said primary software agent further represents a failover software agent for another of said primary software ~~agent~~ agents in another one of said data storage systems;

establishing a failover protocol for determining an order in which said software agents, within a communication path of the data transfer, are designated to take over the data transfer operation in response to one or more data transfer commands when a failure of one or more of said software agents is determined, said protocol being determined during configuration of said computer architecture.

11. (Previously presented) The method of Claim 10, wherein server commands to the software agents are sent over a network in accordance with an IP protocol.

12. (Previously presented) The method of Claim 10, wherein the software agents communicate with the at least one data storage system over the network in accordance with a Fibre Channel protocol.

13. (Previously presented) The method of Claim 10, wherein the data replication management server uses a predetermined hierarchal relationship to select the order in which designated ones of the failover software agents is commanded to take over the work of the one or more determined failed software agents.

14. (Currently amended) A software agent failure tolerant computer system for managing resources for replication of data stored in a data storage environment including at least two data storage systems, and wherein data is replicated from one of the at least two data storage systems to at least one other data storage system of the at least two data storage systems, the system comprising:

a data replication management server;

a software agent, designated as primary software agent, hosted on each of said data storage systems, said primary software agent in communication with at least one of the two data storage systems and the data replication management server, the primary software agent configured for performing data replication operations in response to commands from the data replication management server;

one or more failover software agents in communication with the primary software agent, the data replication management server, and at least one of the two data storage systems, the failover software agents being remote from the primary software agent, wherein said primary software agent further represents a failover software agent for another of said primary software ~~agent~~ agents in another one of said data storage systems; and

a computer-executable program for carrying out a failover protocol for determining an order in which said software agents, within a communication path of the data transfer, are designated to take over the data transfer operation in response to one or more data transfer commands when a failure of one or more of said software agents is determined.

15. (Previously presented) The system of Claim 14, wherein server commands to the software agents are sent over a network in accordance with an IP protocol.

16. (Previously presented) The system of Claim 14, wherein the software agents communicate with the at least one data storage system over the network in accordance with a Fibre Channel protocol.

17. (Previously presented) The system of Claim 14, wherein the data replication management server uses a predetermined hierarchal relationship to select the order in which designated ones of the failover software agents are commanded to take over the work of the one or more determined failed software agents.